



SDXI TWG

2025 Review and 2026 Plans

Presented by Shyam Iyer, Chair

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SDXI TWG 2025 Accomplishments

- SDXI TWG Charter
 - <https://www.snia.org/sdxi>
 - The Smart Data Accelerator Interface (SDXI) is a standard for a memory-to-memory Data Mover and acceleration interface.
- Recent completed work - summary
 - TWG Formed in 2020
 - SDXI Presentation @SNIA SDC Region Summit 2025
 - SNIA SDXI v1.1 Data Movement Accelerator Interface Update @SDC 2025
 - <https://www.snia.org/sniadeveloper/session/19361>
 - Can SDXI work with NVMe? Presentation @SDC 2025
 - <https://www.snia.org/sniadeveloper/session/19324>
 - SDXI RFC Linux Kernel driver posted to LKML by TWG members
 - <https://patchew.org/linux/20250905-sdxi-base-v1-0-d0341a1292ba@amd.com/>
 - 28 SNIA Member companies, 90+ SNIA individual members from member companies on the roster

SDXI TWG Work Items **slide 1 of 2**

SDXI Software Work items

- Release libsdxi v1.0
 - OS-independent user space software library for applications
 - Encourages adopting companies to work towards compliant software implementations and driver models.
- TWG is continuing to enable efforts on SDXI driver for Operating systems
 - Linux and Windows Drivers developed outside SNIA
- TWG is discussing efforts on SDXI emulation implementation
 - Need volunteers, and contributors!
- Release SDXI v1.1
 - SDXI specification items remaining for v1.1
 - DIF/DIX Offload descriptions

SDXI TWG Work Items **slide 2 of 2**

- SDXI specification features for consideration in v1.2 and Beyond
 - Architected Connection Manager Specification
 - Other Operations
 - QoS
 - Other offloads
 - Profiles Capability
 - AI offloads
 - Confidential Computing Remote Access Scenarios
 - Scalable IOV based device model(2.0*)
- Computational Storage TWG collaboration
 - A joint SDXI+CS Subgroup is working on combined architectures, and proposals to complement NVMe storage with SDXI operations
- Storage.AI Community
 - Evangelize SDXI work and applicability with Storage.AI initiatives.

SDXI TWG Membership as of 1/14/2026

- Advanced-Connectek USA, Inc.
- Advanced Micro Devices (AMD)
- Arm Limited
- Broadcom Inc.
- Dell Inc.
- Eideticom
- Hewlett Packard Enterprise
- HS Devices d.o.o.
- Huawei Technologies Co. Ltd
- IBM
- IEIT Systems
- KIOXIA
- Magnition
- Marvell
- Maxlinear, Inc.
- MemVerge Inc.
- Micron Technology Inc.
- Microchip Technology Inc.
- Microsoft Corporation
- NetApp
- Pure Storage
- Samsung Electronics Co., LTD
- Sandisk Technologies, Inc.
- Scaleflux
- Solidigm
- StorageX Technology, Inc.
- Western Digital
- ZeroPoint Technologies AB
- Independent members

SDXI TWG Membership as of 1/14/2026

- ▣ Shyam Iyer, Dell, Chair, SDXI TWG
- ▣ William Moyes, AMD, Editor, Specifications
- ▣ Wei Huang, AMD, Maintainer, libsdxi
- ▣ Shyam Iyer, Dell, co-chair, SDXI+CS Subgroup
- ▣ Jason Molgaard, Solidigm, co-chair, SDXI+CS Subgroup

SDXI TWG Participation

- What is the expected industry impact of this work
 - Standardize data movement across multiple address spaces securely with SDXI Function implementations
 - Standardize in-memory data transforms with accelerators
 - Context:
 - Software memcpy is the current data movement standard
 - Takes away from application performance and incurs software overhead to provide context isolation.
 - Offload DMA engines and their interface are vendor-specific and not standardized for use by user-level software.
 - The SDXI TWG -
 - Develops and standardizes an extensible, forward-compatible memory to memory data mover interface that is independent of actual data mover implementations and underlying I/O interconnect technology.
- What is the industry segment relevance.
 - System vendors (OEMs, cloud vendors), OS vendors (including Hypervisor software), ISV software vendors, HW acceleration vendors (including AI accelerators), Storage Vendors, HW IP vendors, Test and Measurement vendors, AI Solution Frameworks (Pytorch, Tensorflow)
- Why you should join and participate in this group
 - Monitor, contribute, vote, influence, learn
- Who to contact for additional information
 - sdxitwgchair@snia.org